ELSEVIER

Protein Structure and Molecular Enzymology

Vol. 1387, Nos. 1–2; 8 September 1998

BIOCHIMICA ET BIOPHYSICA ACTA

BBA

Contents

BBA is cited in: Current Contents/Life Sciences - Biological Abstracts - Chemical Abstracts - Index Chemicus - Index Medicus/MEDLINE - Cambridge Scientific Abstracts (CSA) - EMBASE/Excerpta Medica - Reference Update - Elsevier BIOBASE/Current Awareness in Biological Sciences

Information for Contributors ix

Reviews

Structure-function relationships in the ezrin family and the effect of tumor-associated point mutations in neurofibromatosis 2 protein
O. Turunen, M. Sainio, J. Jääskeläinen, O. Carpén and A. Vaheri (Finland) 1

Properties of the caspases
H.R. Stennicke and G.S. Salvesen (USA) 17

Regular papers

Rat liver phosphoribosylpyrophosphate synthetase is activated by free Mg^{2+} in a manner that overcomes its inhibition by nucleotides
T. Sonoda, T. Ishizuka, S. Ishijima, K. Kita, I. Ahmad and M. Tatibana (Japan) 32

Butyrylcholinesterase-catalysed hydrolysis of aspirin, a negatively charged ester, and aspirin-related neutral esters
P. Masson, M.-T. Froment, P.-L. Fortier, J.-E. Visicchio, C.F. Bartels and O. Lockridge (France, USA) 41

Resistance of butyrylcholinesterase to inactivation by ultrasound: effects of ultrasound on catalytic activity and subunit association
M.-T. Froment, O. Lockridge and P. Masson (France, USA) 53

Molecular cloning of the *dnaK* locus, and purification and characterization of a DnaK protein from *Bacillus brevis* HPD31
H. Tokunaga, M. Yamakawa, M. Mizukami, H. Takagi and M. Tokunaga (Japan) 65

Identification of the creatine binding domain of creatine kinase by photoaffinity labeling
K.-L. Min, J.-P. Steghens, R. Henry, A. Doutheau and C. Collombel (France) 80

Iron removal from monoferric human serum transferrins by 1,2-dimethyl-3-hydroxypyridin-4-one, 1-hydroxypyridin-2-one and acetohydroxamic acid
Y. Li and W.R. Harris (USA) 89

Crystal structure of bovine annexin VI in a calcium-bound state
A.J. Avila-Sakar, C.E. Creutz and R.H. Kretsinger (USA) 103

Identification of rat brain p42^{IP4}, a high-affinity inositol(1,3,4,5)tetrakisphosphate/phosphatidylinositol-(3,4,5)trisphosphate binding protein
M. Aggensteiner, R. Stricker and G. Reiser (Germany) 117

^{1}H-NMR on line monitoring of water activity during lipase catalysed esterification
B. Decagny, C. Roblot, F. Ergan, C. Sarazin, J.-N. Barbotin and J.-P. Séguin (France) 129

The role of tryptophan residues in *Escherichia coli* arginyl-tRNA synthetase
Q. Zhang, E. Wang and Y. Wang (China) 136

Molecular cloning in the marmoset shows that semenogelin is not the precursor of the TRH-like peptide pGlu-Glu-Pro amide
A.E. Huber, H. Fraser, J. del Rio-Garcia, G. Kreil and D.G. Smyth (Austria, Spain, UK) 143

Characterization of the hatching enzyme from embryos of an anuran amphibian, *Rana pirica*
Y. Kitamura and C. Katagiri (Japan) 153

African elephant myoglobin with an unusual autoxidation behavior: comparison with the H64Q mutant of sperm whale myoglobin
T. Tada, Y. Watanabe, A. Matsuoka, M. Ikeda-Saito, K. Imai, Y. Ni-hei and K. Shikama (Japan, USA) 165

Kinetic study of chemoselective acylation of amino-alditol by immobilized lipase in organic solvent: effect of substrate ionization
T. Maugard, M. Remaud-Simeon and P. Monsan (France) 177

Mechanism of factor IXa inhibition by antithrombin in the presence of unfractionated and low molecular weight heparins and fucoidan
S. Mauray, E. de Raucourt, J.-C. Talbot, J. Dachary-Prigent, M. Jozefowicz and A.-M. Fischer (France) 184

Acetonitrile-protein interactions: amino acid solubility and preferential solvation
K. Gekko, E. Ohmae, K. Kameyama and T. Takagi (Japan) 195

Equine CRISP-3: primary structure and expression in the male genital tract
A. Schambony, M. Gentzel, H. Wolfes, M. Raida, U. Neumann and E. Töpfer-Petersen (Germany) 206

Inhibition of acetylcholinesterase by an alkylpyridinium polymer from the marine sponge, *Reniera sarai*
K. Sepčić, V. Marcel, A. Klaebe, T. Turk, D. Šuput and D. Fournier (France, Slovenia) 217

Oligomerisation of Ca^{2+}-regulatory membrane components involved in the excitation-contraction-relaxation cycle during postnatal development of rabbit skeletal muscle
G.R. Froemming and K. Ohlendieck (Ireland) 226

Structure-activity analysis of brevinin 1E amide, an antimicrobial peptide from *Rana esculenta*
M.-Y. Kwon, S.-Y. Hong and K.-H. Lee (South Korea) 239

Thiol-dependent metal-catalyzed oxidation of copper, zinc superoxide dismutase
O.J. Kwon, S.M. Lee, R.A. Floyd and J.-W. Park (South Korea, USA) 249

Isoform-specific effects of salts on nitric oxide synthase activity
A. Schrammel, A.C.F. Gorren, D.J. Stuehr, K. Schmidt and B. Mayer (Austria, USA) 257

The amino acid sequences of two acylphosphatase isoforms from fish muscle (*Lamna nasus*)
L. Pazzagli, G. Manao, G. Cappugi, A. Caselli, G. Camici, G. Moneti and G. Ramponi (Italy) 264

Purification and characterization of papaya glutamine cyclotransferase, a plant enzyme highly resistant to chemical, acid and thermal denaturation
S. Zerhouni, A. Amrani, M. Nijs, N. Smolders, M. Azarkan, J. Vincentelli and Y. Looze (Belgium) 275

Characterization of plasminogen activator inhibitor 1 mutants containing the P13 to P10 region of ovalbumin or antithrombin III: evidence that the P13 residue contributes significantly to the active to substrate transition
A. Gils, N. Vleugels, K. Tobback, I. Knockaert and P.J. Declerck (Belgium) 291

Organization and structure of NADH-dependent glutamate synthase gene from rice plants
S. Goto, T. Akagawa, S. Kojima, T. Hayakawa and T. Yamaya (Japan) 298

Protein cleavage by transition metal complexes bearing amino acid substituents
A. Buranaprapuk, S.P. Leach, C.V. Kumar and J.R. Bocarsly (USA) 309

Specificity of a wheat gluten aspartic proteinase
W. Bleukx, K. Brijs, S. Torrekens, F. Van Leuven and J.A. Delcour (Belgium) 317

Potential use of a novel lipase from *Aspergillus carneus* in deacetylation reactions
V.S. Parmar, A. Kumar, Poonam, H.N. Pati, R.K. Saxena, S. Davidson and R. Gupta (India) 325

Pancreatic lipase-related protein 1 (PLRP1) is present in the pancreatic juice of several species
J. De Caro, F. Carrière, P. Barboni, T. Giller, R. Verger and A. De Caro (France, Switzerland) 331

Protein kinase activities in ripening mango, *Mangifera indica* L., fruit tissue
L. Frylinck and I.A. Dubery (South Africa) 342

Periplasmic and fimbrial SefA from *Salmonella enteritidis*
S.C. Clouthier, S.K. Collinson, D. Lippert, J. Ausio, A.P. White and W.W. Kay (Canada) 355

The amino acid sequences of carboxypeptidases I and II from *Aspergillus niger* and their stability in the presence of divalent cations
I. Svendsen and F. Dal Degan (Denmark) 369

Specificity of *Pseudomonas aeruginosa* serralysin revisited, using biologically active peptides as substrates
D. Louis, J. Bernillon and J.M. Wallach (France) 378

Phosphorylation of *Mycobacterium leprae* heat-shock 70 protein at threonine 175 alters its substrate binding characteristics
P. Peake, N. Winter and W. Britton (Australia) 387

Steady-state kinetic mechanism, stereospecificity, substrate and inhibitor specificity of *Enterobacter cloacae* nitroreductase
R.L. Koder and A.-F. Miller (USA) 395

Conformational changes of the leukocyte NADPH oxidase subunit $p47^{phox}$ during activation studied through its intrinsic fluorescence
H.-S. Park and J.-W. Park (South Korea) 406

Interaction of second and third domains of Japanese quail ovomucoid with ten mammalian trypsins
T. Asao, K. Takahashi and M. Tashiro (Japan) 415

Protein *trans*-splicing and functional mini-inteins of a cyanobacterial dnaB intein
H. Wu, M.-Q. Xu and X.-Q. Liu (Canada, USA) 422

Site-directed mutagenesis of surfactant protein A reveals dissociation of lipid aggregation and lipid uptake by alveolar type II cells
W. Tsunezawa, H. Sano, H. Sohma, F.X. McCormack, D.R. Voelker and Y. Kuroki (Japan, USA) 433

Subunit conformation and dynamics in a heterodimeric protein: studies of the hybrid isozyme of creatine kinase
S.H. Grossman and D.S. Sellers (USA) 447

Rapid report

The five cysteine residues located in the active site region of bovine aspartyl (asparaginyl) β-hydroxylase are not essential for catalysis
K. McGinnis, G.M. Ku, J. Fu, A.M. Stern and P.A. Friedman (USA) 454

Short sequence papers

Molecular cloning and sequence determination of a novel aspartic proteinase from Antarctic fish
C. Capasso, M. Riggio, R. Scudiero, V. Carginale, G. di Prisco, J. Kay, P. Kille and E. Parisi (Italy, UK) 457
Carbamoyl-phosphate synthetase II in kinetoplastids
T. Nara, G. Gao, H. Yamasaki, J. Nakajima-Shimada and T. Aoki (Japan) 462
Genomic DNA sequence of a rice gene coding for a pullulanase-type of starch debranching enzyme
P.B. Francisco Jr., Y. Zhang, S.-Y. Park, N. Ogata, H. Yamanouchi and Y. Nakamura (Japan) 469
Heterogeneity of Atlantic salmon troponin-I
D.M. Jackman, T. Pham, J.J. Noel, D.M. Waddleton, G.K. Dhoot and D.H. Heeley (Canada, UK) 478

Corrigendum

Hatching enzyme from the sea-squirt *Ciona intestinalis*: purification and properties
A. D'Aniello, M.J. Denucé, M. de Vincentiis, M.M. Di Fiore and S. Scippa (Italy, The Netherlands) 485

Erratum

Characterization of aminopeptidase N from the brush border membrane of the larvae midgut of silkworm, *Bombyx mori*, as a zinc enzyme
G. Hua, K. Tsukamoto, R. Taguchi, M. Tomita, S. Miyajima and H. Ikezawa (Japan) 486

Author Index 487